

REMARKS

Claims 1-24 are pending in this application. In the Office Action, the Examiner rejected the pending claims as follows. Claims 1-5, 10-12, and 18-20 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,134,246 (Cai). Claims 6-9, 13-17, and 21-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cai in view of U.S. Patent No. 5,648,970 (Kapoor).

Cai teaches a method and an apparatus for inverse multiplexing a stream of asynchronous transfer mode (ATM) cells received from a high-bandwidth communication link over a plurality of low-bandwidth communication links. More particularly, Cai teaches performing transmission/reception operation over a plurality of low bandwidth communication links between ATM switches.

Kapoor teaches a system and a method for buffering out-of-sequence packets arriving from a lower service over a multi-path communication network

Regarding the rejection under 35 U.S.C. §102(b) of independent Claim 1, the Examiner states that Cai teaches each and every limitation of Claim 1. Upon reviewing Cai, it is respectfully submitted that the Examiner is incorrect. First, the Examiner states that Cai teaches determining whether a specific service uses at least two links, when there is transmission data for the service, and setting up a sequence number in the transmission packet, when the service uses at least two links, as recited in Claim 1.

Cai teaches inverse multiplexing a stream of asynchronous transfer mode (ATM) cells received over a high-bandwidth communication link using a load balancing algorithm and that ATM cells associated with a particular packet are transmitted over the same low-bandwidth communication link. This concept is better illustrated with reference to FIG. 3 of Cai where Cai teaches grouping ATM cells (130, 140, and 150) into associated packets (P1, P2, and P3, respectively) and then transmitting the packets P1, P2 and P3 each over a single link (as shown). In contrast, as recited by Claim 1, a determination step is used to determine whether a specific service uses at least two links. This concept is neither taught nor suggested by Cai. Accordingly, as Cai does not teach or suggest determining whether a specific service uses at least two links, as recited in Claim 1, it is respectfully requested that the rejection under 35 U.S.C. §102(b) of Claim 1 be withdrawn.

Regarding the rejection under 35 U.S.C. §103(a) of independent Claim 6, the Examiner states that Cai teaches each and every limitation of Claim 6 except for how the communication system handles out-of-order packets. After reviewing the cited references, it is respectfully submitted that the Examiner is incorrect. Claim 6 claims a receiver corresponding to the transmitter of Claim 1. Accordingly, as Kapoor, which is discussed above, does not cure the deficiencies of Cai, Claim 6 is believed to be patentable for at least the same reasons as set forth above with respect to the rejection of Claim 1. Moreover, Claim 6 includes the recitation of sending the received packet to an

upper layer, wherein the packet is for a specific service using at least two links, and the selected link is the link among the at least two links, a distinguishing element of the present invention, which was not addressed in the rejection of Claim 6 and is neither taught nor suggested by either Cai or Kapoor or the combination thereof. Accordingly, as Cai or Kapoor or the combination thereof do not teach or suggest each and every limitation of Claim 6, it is respectfully requested that the rejection under 35 U.S.C. §103(a) of Claim 6 be withdrawn.

Regarding the rejection under 35 U.S.C. §102(b) of independent Claim 10, the Examiner states that Cai teaches each and every limitation of Claim 10. After reviewing Cai, it is respectfully submitted that the Examiner is incorrect. Claim 10 is an apparatus claim which includes similar recitations as those contained in Claim 1. Accordingly, it is respectfully submitted that Claim 10 is allowable for at least the same reasons as set forth above with respect to the rejection of Claim 1. Moreover, Claim 10 includes the recitation of a memory for storing ID of links allocated for a specific service among a plurality of links in association with the service; and a controller for transmitting the packet through the selected link among the links allocated for the service, which is neither taught nor suggested by Cai. Accordingly, for at least the above-stated reasons, it is respectfully requested that the rejection under 35 U.S.C. §103(a) of Claim 10 be withdrawn.

Regarding the rejection under 35 U.S.C. §103(a) of independent Claim 13, Claim

13 includes similar recitations as those contained in Claims 1, 6, and 10. Accordingly, it is respectfully submitted that Claim 13 allowable for at least the same reasons as set forth above with respect to the rejections of Claims 1, 6, and 10. Moreover, Claim 13 includes the recitation of a memory for storing ID of links allocated for the specific service, which is neither taught nor suggested by Cai or Kapoor or the combination thereof.

Accordingly, as Cai and Kapoor, either alone in combination thereof, do not teach or suggest each and every limitation of Claim 13, it is respectfully requested that the rejection under 35 U.S.C. §103(a) of Claim 13 be withdrawn.

Regarding the rejection under 35 U.S.C. §102(b) of independent Claim 18, the Examiner states that Cai teaches each and every limitation of Claim 18. After reviewing Cai, it is respectfully requested that the Examiner is incorrect. Claim 18 is an apparatus claim which includes similar recitations as those contained in Claim 1. Accordingly, it is respectfully submitted that Claim 18 allowable for at least the same reasons as set forth above with respect to the rejection of Claim 1. Moreover, Claim 18 includes the recitation of a virtual circuit (VC) for selecting a link for transmitting the packet among a plurality of links and sending the packet with the sequence number and ID of the selected link to the transport layer, which is neither taught nor suggested by Cai. Accordingly, for at least the above-stated reasons, it is respectfully requested that the rejection under 35 U.S.C. §103(a) of Claim 18 be withdrawn.

Regarding the rejection under 35 U.S.C. §103(a) of independent Claim 21, Claim

21 includes similar recitations as those contained in Claims 1, 6, 10, 13, and 18.

Accordingly, it is respectfully submitted that Claim 13 is allowable for at least the same reasons as set forth above with respect to the rejections of Claims 1, 6, 10, 13, and 18.

Independent Claims 1, 6, 10, 13, 18, and 21 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2-5, 7-9, 11-12, 14-17, 19-20, and 22-24, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2-5, 7-9, 11-12, 14-17, 19-20, and 22-24 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-24, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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